### Chapter 4

## **Transportation**

#### **ROADS AND HIGHWAYS**

NC Hwy. 150 is a major-east-west thoroughfare that provides inter-county travel to five counties: Cleveland, Lincoln, Catawba, Iredell and Rowan. Major urban areas, including, Shelby, Lincolnton, Mooresville and Salisbury, are served by this highway. The section of Hwy. 150 in Catawba and Iredell counties also serves the fast-growing Lake Norman residential and commercial areas. The Hwy. 150 corridor also serves as an important transportation corridor for emergency and disaster response as part of the 10-mile Emergency Planning Zone (EPZ) for the McGuire Nuclear facility in Mecklenburg County.

# The average daily traffic count (number of vehicles per day or ADT) on Hwy. 150 ranges from 8,300—15,000 ADT (see *Tables 4 and 5: Average Daily Traffic Count*). This places the highway at a Level of Service (LOS) B to F based upon its 2-lane practical carrying capacity of 12,100—14,860 ADT (note: LOS represents the relationship of traffic volumes to the capacity of the roadway with LOS A being free-

flowing traffic and LOS F being beyond capacity where traffic is slowed/stopped at times).

#### **Transportation**

Roads and

Plan Goals

Highways	1
Pedestrian and Bicycle System	4
Transit System	6
Guiding Principles	6



Table 4: Hwy 150 Corridor (Western Portion): Average Daily Traffic Count 2000-2040						
	Hwy. 150/16 Busi- ness—west of in- tersection	Hwy. 150/16 Business - east of intersection	Hwy. 150/Mt. Pleasant Road (SR 1849)	Hwy. 150/ Slanting Bridge Road (SR 1844) - west of inter- section		
2000	11,600	9,600	6,800	8,300		
2004	12,000	9,700	11,000	10,000		
2009	12,000	10,000	12,000	9,100		
2011	12,000	9,800	11,000	8,700		
2021	16,400	12,000	12,900	11,000		
2030	20,300	17,900	19,700	16,000		
2040	23,300	21,800	24,000	20,500		

Table 5: Hwy. 150 Corridor (Eastern Portion): Average Daily Traffic Count 2000-2040						
	Slanting Bridge Road (SR 1844) - south of Hwy. 150	Hwy. 150/Sherrills Ford Road (SR 1848) - west of in- tersection	Sherrills Ford Road (SR 1848) - north of Hwy. 150	Hwy. 150/ Sherrills Ford Road (SR 1848) - east of inter- section		
2000	n/a	8,300	n/a	13,000		
2004	6,300	13,000	6,400	18,000		
2009	6,500	12,000	5,400	16,000		
2011	6,600	11,000	5,200	15,000		
2021	8,600	13,300	8,400	19,800		
2030	11,500	19,200	7,500	25,500		
2040	14,700	25,000	10,200	35,300		

Source: NCDOT AADT Maps, 2003-2011; and 2040 Long Range Transportation Plan (for 2021, 2030 and 2040 projections)

Even though traffic along Hwy. 150 grew significantly in the 1970's and 80's (almost 90% on the section east of Sherrills Ford Road), it has leveled out in the mid-2000s. This is representative of the traffic counts found throughout the Metropolitan Planning Organization (MPO) region. The downturn in the economy, with the resulting loss in jobs and reduction in disposable income, is the basis for the leveling of traffic counts in some estimations.

Transportation planning for the Hwy. 150 corridor plan area is coordinated by the Greater Hickory Metropolitan Planning Organization (GHMPO) and is administered by the Western Piedmont Council of Governments. The GHMPO was created from the Hickory-Newton-Conover MPO when the Hickory urban area expanded after the 2000 Census. As a result of the 2010 Census, the MPO Planning Area expanded to take in the southeastern portion of Catawba County, which now includes the Hwy. 150 corridor. Prior to this, the Hwy. 150 corridor was included in the region's Rural Planning Organization (RPO) planning area.

Future transportation needs for the Hwy 150 corridor area are included in the 2040 Greater Hickory Urban Area Long Range Transportation Plan, which was adopted in January 2014. This Plan is a multi-modal document which guides the planning and development of the urban area's transportation systems for a 25-year horizon period. The Transportation Plan lists Hwy. 150 as a "regionally significant project" and recommends widening the route to a multi-lane boulevard for its entirety in Catawba County. The boulevard design incorporates a center median which restricts movements to right-in and right-out turns and at grade crossings at major/minor cross streets. This design is based upon the North Carolina Department of Transportation's designation of the Hwy. 150 corridor as a "Strategic Highway Corridor" (SHC). The SHC initiative was established to protect and maximize the mobility and connectivity of a core group of highway corridors throughout North Carolina. NCDOT's long-term vision of the corridor is to engage local governments and other partnering agencies to have consistent land-use decision-making and to protect the corridor through access management.

Hwy. 150 is listed in NCDOT's draft 2013-23 State Transportation Improvement Program (STIP) as project



NCDOT Terrell bypass options





Lake Norman Bicycle Route Plan

#R-2307. The STIP proposes to widen Hwy. 150 from the NC 150/I-77 interchange in Iredell County to the NC 16 Bypass in Catawba County, which is approximately 13.5 miles in length. The project is broken into two segments, with Segment A being entirely in Catawba County and Segment B being from Harvel Road (SR 1902) in Catawba County to I-77 in Iredell County. The draft STIP indicates that right-of-way acquisition for Segment B will begin in FY 2017 and in 2020 for Segment A. Construction would then begin in FY 2019 for Segment A and FY 2023 for Segment A (note: as part of NCDOT's 2013 Strategic Prioritization program, the Hwy. 150 widening project will be re-evaluated for funding priority in mid-2014 which could affect this schedule).

NCDOT formally began the design process for the widening of Hwy. 150 with the sponsoring of a public hearing on November 21, 2013. At the hearing, NCDOT presented maps showing the planning corridor with the existing road alignment along with alternate routes to bypass the Terrell Historic District. Two of the bypass alternates go south of the Hwy.150/Sherrills Ford Road intersection and one goes north. These alternate routes and widening of the existing location are being evaluated by NCDOT. It is anticipated that environmental documents will be available in the summer of 2015 with a draft design corridor and public workshop in late 2015.

#### PEDESTRIAN AND BICYCLE SYSTEM

Pedestrian and bicycle system planning for the County has been conducted over the last several years and is formulated in several documents: The Greater Hickory Recreation/Tourism Plan (2006), Catawba County Master Parks and Recreation Plan (2007), the Lake Norman Bicycle Route Plan (2010) and the Carolina Thread Trail Master (CTT) Trail Plan for Catawba County Communities (2010). These plans have identified several pedestrian and bicycle trail segments within the corridor. Both the Lake Norman Bicycle Route Plan and the Carolina Thread Trail plan endorse the concept of a bicycle route encircling Lake Norman which allows all types of users to experience a safe and enjoyable travel around the lake. While the segments proposed within Catawba County are on-road routes, as new development occurs

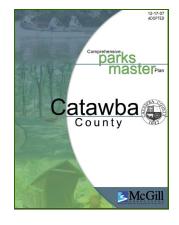
with the area, there will be opportunities for off-road trails. Also key to both plans is the interconnectivity to the adjoining counties of Iredell and Lincoln. The initial route for the Lake Norman Bicycle Plan does not utilize Hwy. 150 for safety reasons. The ultimate plan does include Hwy. 150 when the road is widened, subject to funding, and incorporates a multi-purpose path.

The Lake Norman Bicycle Plan currently includes a signed route which runs on Slanting Bridge Road north of Hwy. 150. This route travels north to Sherrills Ford Road. It ultimately parallels Lake Norman on Kale Road to the cross-county connection at the Hudson Chapel Road bridge over the Lake.

The proposed pedestrian and bicycle facilities within the Plan area are shown on *Map 8: Transportation/Multi-modal Recommendations*.

In order to implement the planned pedestrian and bicycle facilities, Catawba County's Unified Development Ordinance (UDO) requires improvements for new development. Pedestrian walkway construction in new residential development is required when 25 or more lots are proposed within the R-20 or higher density districts. For less dense residential development, open space is required with a portion to be improved as a trail sys-In addition, pedestrian improvements are required for new commercial development where the property fronts a road. This provision is included in the County's adopted Unified Development Ordinance. A fee-in lieu of option in place of pedestrian improvement construction or the provision of open space may be allowed by the County. These funds would be used for installation of sidewalks, trails, bicycle paths or capital projects based upon the identified needs in the adopted bicycle/pedestrian plans. The UDO also requires properties in the Mixed Use Corridor Overlay (MUC-O) along Hwy. 150 to provide for pedestrian travel between building clusters within new developments. parking facilities are required in the UDO when nonresidential and multi-family developments are located within 500 feet of bicycle corridors in officially adopted bikeway plans. It is the policy of the MPO and NCDOT to evaluate any new road construction project for potential pedestrian needs and bicycle accommodations. This coordination particularly has been emphasized with the widening of Hwy. 150 (R-#2307).







Greenway Transit system

#### TRANSIT SYSTEM

A consolidated public transportation system was established in 2008; whereby, the community transportation network provided by the Piedmont Wagon Transit System was combined with the other Unifour systems to become the Western Piedmont Regional Transit Authority. The new system now operates under the Greenway Public Transportation program providing limited transit services to the Plan area. Vans are available five days per week to transport senior citizens and disabled residents; however, no fixed Greenway routes currently exist in the Plan area.

#### **GUIDING PRINCIPLES**

#### **ROADS & HIGHWAYS**

- TP-1 Anticipate and plan for growth that will result from road, bridge, improvements and widening.
- TP-2 The right-of-way for new roads or widening of existing roads should be protected when new developments are approved.
- TP-3 Coordinate transportation policies with land use policies.
- TP-4 Encourage alternate modes of transportation, including increased use of existing means such as public buses, school buses, railroads, bicycles and pedestrian.
- TP-5 Provide for safe roads and intersections and scenic roadways.
- TP-6 Provide for interconnection of new developments and where practical, to existing neighborhoods.

#### PEDESTRIAN SYSTEM

TP-7 Provide safe alternatives for pedestrians.

#### **BICYCLE SYSTEM**

TP-8 Provide safe options for bicyclists.



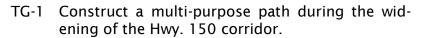
Pedestrian—Sidewalk System

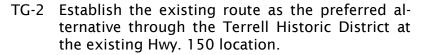
#### TRANSIT SYSTEM

TP-9 Increase opportunities to link with existing transit routes.

#### **PLAN GOALS**

In the State of North Carolina, counties do not construct or maintain roads; therefore, the following recommendations will be forwarded to NCDOT or used in areawide transportation planning. The transportation goals are depicted on *Map 8: Transportation/Multi-modal Recommendations. Note:* A Transportation Goal (TG) reference number is depicted on the map representing site specific projects.



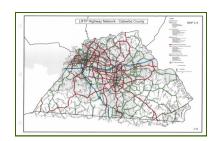


- TG-3 Employ traffic calming techniques between Sherrills Ford Road and Slanting Bridge Road.
- TG-4 Preserve future right-of-way for the widening of Hwy. 150 when new developments are proposed.
- TG-5 Ensure that necessary turn lanes, acceleration lanes and deceleration lanes are constructed for new developments.
- TG- 6 Ensure that mass transit is provided within the corridor, as demands dictate.
- TG-7 Request NCDOT to install mast poles when replacing or installing new traffic signals.
- TG-8 Reduce the speed limit on Slanting Bridge Road and Mt. Pleasant Road (from Little Mountain Road to Hwy. 150) to 45 mph.
- TG-9 Evaluate the alignment of the following intersections:
  - 1) Sherrills Ford Road/Slanting Bridge Road
  - 2) Hwy. 150/Mt. Pleasant Road



Sidewalk construction





Long Range Transportation Plan Catawba County

- 3) Hwy. 150/Greenwood
- TG-10 Evaluate the intersection of Hwy. 150 and Grassy Creek Road for signalization.
- TG-11 Provide a welcoming gateway into the County for westbound traffic at the Lake Norman bridge.
- TG-12 Request NCDOT to consider designing an elevated Lake Norman bridge in order to provide larger boat access to the northern portion of the lake.
- TG-13 Remove barriers that will impede the widening of Hwy. 150.